ENCLOSED AC-DC POWER SUPPLY

LRS-50 Series

50 W series | Single-output switching power supply

Output options: 12, 15, 24, 48 V DC



01 Output ratings

Model	LRS-50-12	LRS-50-15	LRS-50-24	LRS-50-48
DC output voltage	12 V	15 V	24 V	48 V
Output current range	0-4.2 A	0-3.4 A	0-2.2 A	0-1.1 A
Efficiency	86%	88%	88%	90%
Ripple and noise	120 mV p-p	120 mV p-p	150 mV p-p	200 mV p-p
Line regulation	±0.5%	±0.5%	±0.5%	±0.5%
Load regulation	±0.5%	±0.5%	±0.5%	±0.5%
DC voltage adjustment	±10%	±10%	±10%	±10%

02 Input, protection and insulation

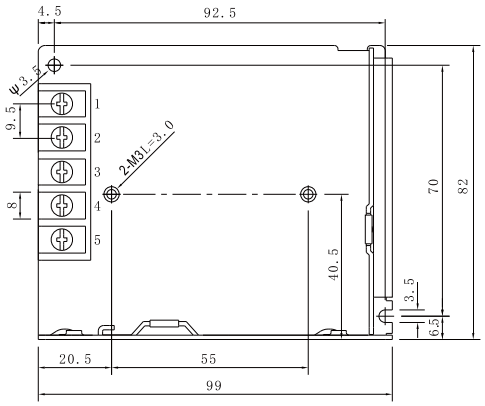
Input voltage	85-264 V AC, 47-63 Hz; 120-373 V DC
Inrush current	45 A at 230 V AC (cold start)
Overload protection	110-150%: output shuts off; automatic recovery.
Other protection	Overcurrent protection / Short-circuit protection
Setup / rise time	230 V AC: 1000 / 30 ms; 115 V AC: 2000 / 30 ms. Hold-up time not specified.
Withstand voltage	Input-output: 1.5 kV; input-FG: 1.5 kV; output-FG: 0.5 kV (1 min).
Insulation resistance	100 MOhm at 500 V DC, input-output / input-FG / output-FG; 25 °C, 70% RH.

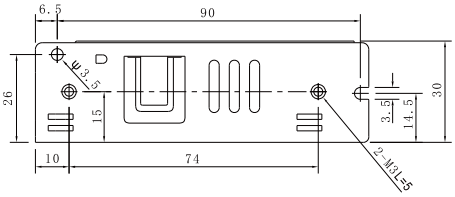
03 Operating and mechanical data

Operating temperature	-20 to +70 °C; see derating conditions on page 2.
Dimensions (L × W × H)	99 × 82 × 30 mm
Unit weight	0.23 kg
Packing	44×36.5×19.5 cm; 80 pcs; 16 kg

04 Mechanical outline

Dimensions in millimetres





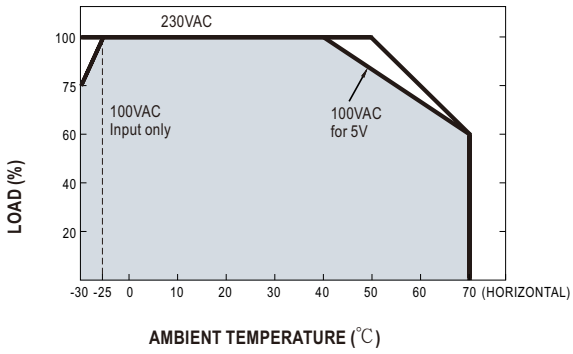
Body (L × W × H): 99 × 82 × 30 mm

Terminal assignments

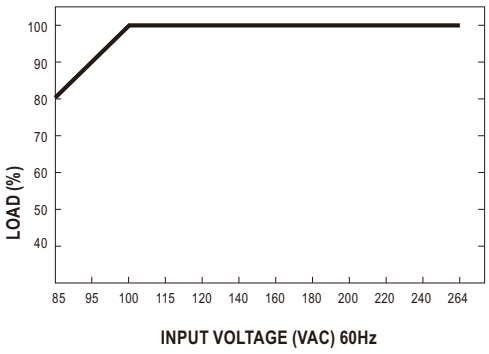
AC input	Protective earth	DC output -V	DC output +V
Pins 1, 2	Pin 3	Pin 4	Pin 5

05 Load derating

Derating Curve



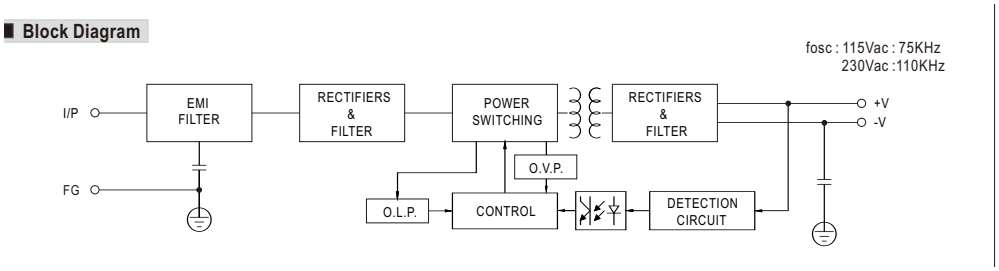
Static Characteristics



Use within -20 to +70 °C and the AC input ranges on page 1. Follow the plotted input voltage, frequency and mounting conditions. Do not extend ratings beyond the stated limits.

06 Functional block diagram

Block Diagram



Allow adequate ventilation. Use the percentage load curves with the absolute WEHO output limits. These same-model reference diagrams do not change protection limits or constitute new tests, certification or warranty coverage.